FYP Ideas - Fall 2023

1. FYP Title

FYP Description

2. Cryptojacking Detection and Prevention

A browser based detection and prevention of cryptojacking; a cybercrime used to mine cryptocurrency without user consent.

3. PocDoc

NurseBot, an Android app, leverages the knowledge of medical professionals to provide users with accurate diagnoses based on symptoms. It suggests appropriate medication and directs users to nearby healthcare providers. The app stores users' medical profiles accessible through a QR code during emergencies for quick access by medical experts.

4. De-Mandee (Decentralized Mandee)

Decentralized and AI powered android marketplace for B2B selling of agriculture products

5. Shaheen OCR

OCR WebApp that extracts text from images for both English and Urdu . Further integrated with a previous FYP "Wise Translator" to make Image to Translation a seamless experience.
Works both ways.

6. Model for chest X-ray report generation

Automatically generated reports through Natural language processing methods from High Quality Radiology of chest X-rays for patient diagnosis and care

7. Ride Share Application

The project involves building an Android app that allows users to find others heading to the same destination. Users can connect with each other in real-time to share rides, making commuting more convenient and efficient, such as students going from university to a common location like G-11.

8. 3D model detailing of 2D plans

A software which will convert 2D drawings of a building into 3D model and will allow to edit the detailing

9. PersoniCoder

A social media mobile application that will give the users a safe environment to share their incident stories with the world and to report any crime activity they face on the spot. Moreover, the application will provide them an analysis of the dangerous areas based on the crime activity there.

10. 3D Home Builder

A website used for Designing your dream home effortlessly and easily. An advanced and easy-to-use 3D home design tool.

11. Integrated Software Requirements Management Tool

Managing software requirements clearly and consistently is made easy with our tool using NLP (Natural Language Processing) and AI (Artificial Intelligence) based validation, traceability and real time ambiguity analysis.

12. Fashion Fever

Fashion Fever is a Web Application that would generate Clothing options based on Text to Image Synthesis using Generative Adversial Network(GAN) to design clothes based on given textual information.

13. Virtual Try Room

Virtual try room enables users to try clothes and check for size and style rather than a physical experience. It works by overlaying the chosen clothes on the user's live video. This can be useful during the pandemic as the users could try clothes without physically trying them which would result in a better shopping experience.

14. VigourX

vigourX is a health based food recommendation system that give suggestions of foods which are good for the users' health. It will help users to reduce the risk of physical health problems like heart disease and diabetes, e.g. if someone have diabetes our app will suggest foods that are sugar free and good for diabetes patients.

15. Personality Assessment Through Social Media

A system to write and maintain criminal records on the block chain so they cannot be altered and misrepresented.

16. Video indexing and retrieval

Multimedia's rapid growth on the internet demands efficient video indexing and retrieval systems. A machine learning-based web app will automatically index videos using text detection and recognition, facilitating easier searches on YouTube in both English and Urdu languages.

17. Scribe

It is a smart scheduler intended for helping predict/plan,track, and re-evaluate a timetable of day to day activities for a more planned, productive and time-effective lifestyle. Potential targets or customizations of of our product include the office environment or the academic environment.

18. Graph visualization of Research Papers

A tool will be developed to aid researchers in finding relevant research pages discussed at conferences. It will create linkages between research pages through graphs based on topics, keywords, and abstracts, enabling easy searches based on specific criteria like "Deep Learning."

19. Aitebar

Decentralized & Immutable Donation Tracking System for Non-Profit Organizations with the aim to increase transparency, reduce fraud, bolster donor engagement and build trust.

20. EasyMeds

Scan e-prescriptions to identify chemical formula of medicines to suggest alternate medicines of the the same chemical formula on the basis of price and reviews

21. Blockchain Based Decentralized Freelancing System

We are planning on developing a blockchain based decentralized freelancing system that enables both freelancers and contractors to post, bid, reward, communicate, and transact etc. It will help reduce payable fees, payment delays, unfair treatment, compromised trust, and centralized role of the freelancing platform. The main tools and technologies that we will be using comprise of Ethereum, Solidity, React, Node.js, Web3 library, OpenEthereum, Rust, and IPFS amongst others.

22. SmartFarm

Bringing all the medication companies of Pakistan on to a blockchain system to avoid fake medication trafficking.

23. Biometric verification using PPG signals

In this project we will perform biometric verification using ppg signals. To get these signals user will put his/her finger on smart phone camera, camera will record video for 30 seconds. Then we will perform deep learning methods to perform biometric verification.The signals can be extracted based on subtle changes in the video that are due to changes in the light reflection properties of the skin as the blood flows through the finger.

24. Security Focused Home Automation Solution

A complete home automation system focused mainly on security features like, theft prevention, AI biometric entry, intruder deterrence system with real time updates